

REMARKS

Favorable reconsideration and allowance of the present application is respectfully requested.

Currently, claims 1-24 and 34-41, including independent claims 1, 16, and 34 remain pending in the present application. Independent claim 1, for instance, is directed to an insulation blanket for providing thermal and noise insulation in the cabin of an aircraft. The insulation blanket comprises an insulation layer containing an insulation material positioned adjacent to a barrier layer containing a film attached to a scrim made from generally flame-retardant, textured yarns.

In the Office Action, independent claims 1, 16, and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,054,710 to Botsolas in view of 3,991,549 to Heinrich, et al. Botsolas describes a flexible jacketed insulating blanket for covering and thermally insulating pipes and other equipment with surfaces that are flat or have simple curvature. (Col. 1, lines 58-61). The jacketed insulation blanket includes, *inter alia*, a vapor barrier film, an inorganic fiber insulation layer, and a reinforcing fiberglass scrim cloth. (Col. 2 lines 6-15). For example, as shown in Fig. 2, a mass type insulation 9 is bonded to the uncoated face of a vapor barrier layer comprising polyester film 11 and an aluminum coating 12. The coating 12 is bonded by an adhesive 13 to a layer 14 of asbestos paper in which is embedded a reinforcing layer 15 of open mesh fiberglass scrim cloth. (Col 2, lines 40-67).

Applicant respectfully submits, however, that Botsolas fails to disclose various limitations of independent claims 1, 16, and 34. For example, Botsolas fails to disclose

a scrim in which the yarns are generally flame retardant and textured, and thus multi-functional, i.e., they facilitate flame resistance, as well as noise and thermal insulation.

Nevertheless, in the Office Action, Heinrich, et al. was also cited in combination with Botsolas in an attempt to achieve the limitations of independent claims 1, 16, and 34. One of the problems dealt with by Heinrich, et al. is that, when conventional drawing and texturizing treatments were arranged simultaneously, the drawing step was set at the beginning of the texturizing apparatus. (Col 1, ll. 50-53). This treatment implies that part of the filaments break away within the stretch area. The resulting loose ends jam the twister of the texturizing apparatus. (Col 1, ll. 53-68). Thus, it is an object of Heinrich, et al. to prepare "nontexturized filament yarns" that may be worked up to fabrics having a low pilling tendency. (Col 2, ll. 1-6).

According to the recent Office Action, the basis for combining Heinrich, et al. with Botsolas is as follows:

. . . Heinrich, et al. disclose[s] that false twist texturizing leads to a reduced flex abrasion resistance, and thus a good linear strength (col 2, ln 52-54).

(Emphasis added). However, Heinrich, et al. actually only states that "filaments having a reduced flex abrasion resistance and, nevertheless, a good linear strength . . . may be obtained from high polymers." (Col 2, ll. 52-58). Heinrich, et al. does not indicate that texturizing leads to a reduced flex abrasion resistance. Furthermore, Heinrich, et al. also does not indicate that a reduce flex abrasion resistance leads to a good linear strength. Flex abrasion resistance relates to the resistance to folding and wearing. (Col 2, ll. 16-22). Reducing flex abrasion resistance would not necessarily result in a better linear strength, and in fact, would likely result in just the opposite.

In any event, Heinrich, et al. at best only describes yarns with good linear strength and reduced flex resistance. There is simply no motivation to utilize such yarns in the thermal insulation of Botsolas. For instance, as indicated above, the fiberglass scrim cloth 15 of Botsolas functions to greatly reinforce the strength of the felted asbestos layer 14. In fact, Botsolas states the following:

Without reinforcing fiber glass threads, the binder resin in the asbestos paper would burn or decompose with a resulting loss of binding properties, and the asbestos paper would tend to collapse or tear as a result of the asbestos fibers falling apart at temperatures at which the combined glass fiber and asbestos layer described herein would retain its configuration and substantial strength from its intact glass strands embedded in shielding asbestos that is held together mainly by those glass strands. (Col 8, lines 29-32)
(Emphasis added).

As evidenced by the passage above, there would simply have been no motivation for one of ordinary skill in the art to substitute the yarns of Heinrich, et al. for the fiberglass scrim cloth 15 of Botsolas, particularly in view of the necessity of the fiberglass threads to the jacket construction of Botsolas.

Applicant also notes that independent claims 16 and 34 require an insulation layer sandwiched between a first barrier layer and a second barrier layer, wherein each barrier layer contains a film attached to a scrim. Botsolas fails to disclose the teaching that there further comprises a second barrier layer adjacent to the insulation layer. Nonetheless, it was stated in the Office Action that such a layered construction would have been obvious because the "mere duplication of the essential working parts of a device only involves routine skill." However, Botsolas indicates that the insulation material (i.e., strips 9) is placed in "direct contact" with pipe or other equipment surfaces

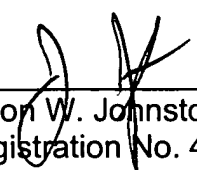
to be covered with the composite jacketed insulation. (Col 7, lines 31-35). Based on such teachings, there is simply no indication that one of ordinary skill in the art would be motivated to sandwich the insulation layer between two barrier layers so that the insulation layer no longer directly contacts the surface to be covered. Thus, for at least the reasons set forth above, Applicant respectfully submits that independent claims 1, 16, and 34 patentably define over the references cited, taken singularly or in any proper combination.

Thus, for at least the reasons set forth above, Applicant respectfully submits that the present claims patentably define over the prior art of record. It is believed that the present application is in complete condition for allowance and favorable action, therefore is requested. Examiner Ruddock is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this response.

Please charge any additional fees required by this Response to Deposit Account No. 04-1403.

Respectfully requested,

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